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ABSTRACT

The stated purpose of this set of materials is to help educators accomplish four tasks: (1) identify "appropriate" instructional resources for handicapped students in vocational classes; (2) use an objective checklist to evaluate a resource's "usefulness" (a sample checklist is provided); (3) use criteria to evaluate a resource's "outstandingness" (a sample evaluation instrument is provided); and (4) review materials throughly and consistently (a set of reviewer guidelines are provided). Sections in this document include a rationale for evaluating resources, definitions (e.g., handicapped persons, mental retardation, learning disabilities, appropriate resources, usefulness, and outstandingness), considerations for resource evaluation, using the instructional resource checklist for "usefulness", using the curriculum-based evaluation form for "outstandingness", and implementing review procedures. (JH)

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ABSTRACT: The intent of this brief is to provide educators with information/documents needed to evaluate instructional resources for handicapped students in vocational classes.

This package is designed to help educators accomplish four tasks: (1) identify instructional resources "appropriate" for handicapped students in vocational classes; (2) use an objective checklist to evaluate a resource's "outstandingness"; (3) review materials thoroughly and consistently.

Federal and state governments may have guaranteed the right of handicapped students to learn useful skills and perform as productive workers, but it is the vocational teacher who insures that handicapped students receive and benefit from the full measure of the law.

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Evaluating Resources for Handicapped Students

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in brief

This package of materials is designed to help you accomplish four tasks:

- Identify instructional resources "appropriate" for handicapped students in vocational classes.
- Use an objective checklist to evaluate a resource's "usefulness."
- Use criteria to evaluate a resource's "outstandingness."
- Review materials thoroughly and consistently.

MAJOR GOAL:

To provide you with the information/documents you need to evaluate instructional resources for handicapped students in vocational classes.

Before proceeding to the tasks necessary to accomplish the major goal of this learning package, you may want to consider the following questions:

- *"Why should I evaluate vocational materials for handicapped students?"*
- *"What experience/qualifications/knowledge does MVCRDC have that will help me?"*

- *What, exactly, do you mean by 'appropriate,' 'useful,' and 'outstanding,'? And who are included in the term 'handicapped'?"*

We have answered these questions for you in the Rationale, Background, and Definitions sections, based on our experence. After you read these sections, you should be ready to begin.

rationale

Learning useful skills and having an opportunity to apply them in productive work should be a right which every individual can exercise freely. For many handicapped, this right has been blocked by assumptions made about their learning potentials. Rather than allowing predetermined beliefs decide what the handicapped can or cannot learn, do, and become, edcators must help students progress by combining the best teaching strategy with the best instructional resource. By focusing on how-to-teach instead of the self-limiting what-to-teach, educators can help handicapped students discover and expand their own learning potentials. Vocational materials should be developed and evaluated with the major criterion being how well they teach a subject to learners with specific, identified needs.

background

One of the most serious problems in meeting vocational needs of handicapped students is locating suitable curriculum resources. The Maryland Vocational Curriculum Research & Development Center, through contracts with the State Department of Education, has conducted a national search, collected and evaluated resources, and compiled resource guides to materials for handicapped, disadvantaged, and bilingual students. Our experiences, as a Center, in searching for materials, designing an Instructional Resource Checklist, and identifying outstanding vocational materials can be helpful to all Maryland vocational educators concerned with providing an appropriate education to the handicapped.

definitions

According to the Education for All Handicapped Children Act of 1975, "handicapped" persons are those who suffer mental retardation, sense impairment (visual, hearing, speech), orthopedic impairments, multiple handicaps, other health impairments, serious emotional disturbances, or learning disabilities. Differences in both the rate and education level of individuals are especially significant for learning disabled (LD) and mentally retarded (MR) students who comprise much of the total handicapped population. These students, particularly the "mildly" MR mainstreamed in the regular classroom, represent those handicapped most likely to be encountered by vocational educators. Many vocational educators have had little experience with this population, and may not be as effective in the classroom as they could be.

Some important definitions follow:

1. Characteristics of "Mental Retardation":

The American Association on Mental Deficiency (AAMD) defined mental retardation as having these elements: (1) low intellectual functioning, an IQ between 50 - 70, 75, 80 depending on the state; (2) deficiency in adaptive behavior; (3) deficiencies acquired during the developmental period, the age when skills such as sitting, walking, feeding, talking, and dressing are learned.

2. Characteristics of "Learning Disabilities":

In the "Children with Specific Learning Disabilities Act of 1969," learning disabilities are described as psychological disorders involving spoken or written language. These may be manifested as problems in listening, talking, reading, writing, spelling, or arithmetic. They do not include learning problems due to visual, hearing, or motor handicaps, or to mental retardation, emotional disturbance, or environmental deprivation.

3. Some Learning Difficulties of MR & LD Students:

- low reading level
- computation difficulty
- poor discrimination (e.g., judging distance, judging size, sequencing events)
- poor verbal ability
- poor recall
- short attention span
- poor motor coordination
- rigid approach to problem-solving
- low tolerance for frustration
- difficulty working with abstractions
- difficulty in making generalizations (Henson & Fairchild, 1976; Parks & Fairchild, 1976).

4. Features of "Appropriate" resources:

Features which should be considered when selecting "appropriate" vocational resources for handicapped students include (1) subject area coverage, (2) age group, (3) cost effectiveness, (4) special features designed for learning difficulties, and (5) suitability or adaptability of format for special needs.

5. Instructional Resource Checklist for "Usefulness".

The MVCRDC developed a checklist for evaluating instructional resources, field tested it in 1978, and revised it in 1979. Such a checklist is a quick way to assess suitability of materials for any target population. This resulted in three modifications of the original form which were adapted to the evaluation of vocational materials for handicapped, disadvantaged, and bilingual students. Categories included on the checklist are useability, format, readability, content, subjective comments, and overall recommendation. The Instructional Resource Checklist is FORM #1 at the end of this package.

6. Criterion-Based Evaluation Form for "Outstandingness":

The Instructional Resource Checklist previously described is designed only to critique a resource's "usefulness." To critique a resource's "outstandingness," an evaluation instrument such as the one developed by the Center, FORM #2, can be

used. Specific criteria must be developed and field-tested by critiquing those resources judged to be outstanding in an actual classroom situation with handicapped students.

how to begin

Before you can begin to review either the usefulness or outstandingness of vocational materials for teaching handicapped students, you must first identify the materials available. Publisher's catalogs are the most common source.

Then look for those features previously defined as considerations fo appropriate instructional resources. The subject coverage you expect from a particular resource will vary with your teaching situation: *Do you want a main teaching tool in a specific curriculum area for a self-contained classroom or a supplement to aid several mainstreamed students?*

Look for the age group for which the resource is intended. Ages and social/emotional maturity levels of the students are important considerations, as are academic grade levels. For example, a personal finance test for students not yet making any major purchases should use examples of budgets including items students would be familiar with, such as ten-speed bicycles and records, not appliances and mobile homes.

Weigh the cost of the resource against the number of times it will be used and the number of students who will use it. Next, consider the following: replacement costs if components are consumable, hardware needed it the resource is non-print, durability, and attractiveness and manageability of the package.

For any group of learners, subject area coverage, age group, and cost-effectiveness are always considerations in the purchase of a curriculum resource. Many of the questions these considerations will create will be answered in publishers' catalogs. Unfortunately, the special features needed for the handicapped often are not easily identified in the catalog description. Concerns such as pacing, instructional sequence, performance objectives, immediate feedback, new vocabulary repeatedly presented, readability level, high interest motivators, and large print are often overlooked. Even though a resource may not be advertised or designed especially for MR/LD students, it may be adaptable. Without the resource tself to review, some signal phrases that suggest possible suitability include the following:

- high interest
- low reading level
- step-by-step progression
- basic, introductory
- simple, easy-to-learn
- low level vocabulary
- individualized, competency-based

using the checklist

As you read about using the Instructional Resource Checklist, study the sample provided.

Intended Use. A vocational education resource may be designed primarily for students, as professional development for teachers and administrators, or for all if a comprehensive teacher's manual is included as part of a learning package. If intended for students, the resource may be designed for individual or group instruction on a secondary, post secondary, or adult basic education level.

Features for Handicapped Students. A resource designed to meet the needs of the handicapped ideally will do the following:

- develop self-worth
- develop favorable work attitudes/habits
- develop career awareness
- identify related work skills
- promote development of psychomotor skills
- provide immediate feedback
- use a modifiable instructional format
- reinforce positive personal/social behavior
- aviod sex stereotyping
- aviod cultural stereotyping

Instructional Format. Items that determine usefulness include the following:

- subject index
- bibliography/references
- performance objectives
- simple directions
- student activities
- student work sheets
- review questions
- answer key
- teacher's handbook/manual

Print Format. Before ordering any print material, a teacher may want to know if it is hardbound, paperbound, looseleaf, stapled, or bound with a plastic spine. Number of pages may also be important, since a large, thick text may discourage students before opening the cover.

Nonprint Format. Nonprint materials include filmloops/strips of various millimeter size, reel-to-teel films, slides, cassettes, transparencies, and games. Length and color versus black/white are other variables.

Readability. This includes more than grade level based on word difficulty and sentence length. Other characteristics of readability appropriate for the handicapped include large print, double columns, generous paragraph spacings, and high interest motivators such as drawings, photographs, charts and color.

Description. No checklist is comprehensive enough to adequately cover all the content possible in vocational subjects. Space must be provided for a reviewer to describe subject coverage, topical areas, general pacing, and adequacy of the general instructional sequence information which can be conveyed in short, concise sentences that are easily understood.

Prerequisite Student Skills. Another part of the content that affects the teaching/learning process is any prerequisite knowledge or skills that students are expected to have as a foundation for new material. Some assumed prerequisites might include vocational training, math skills, and writing skills.

Comments. Besides a description of content and objective checklist of useability, format, and readability, some evaluation judgements about the quality of the resource need to be made. These include elaboration of items checked or not checked in sections of the form. For example, if "avoids sex stereotyping" is not checked, the reviewer may want to explain how the resouce demonstrates sex-bias or shows traditional role stereotyping. On the other hand, if "modifiable instructional format" is checked, the reviewer may want to comment on how the resource may be advantageously modified. Other questions to address in the Comments section may include: *Are vocational opportunities and job experiences presented realistically? Are characters, fashions, vehicles, themes, soundtracks, etc., contemporary? Is new vocabulary clearly defined and repeatedly presented?*

Overall Recommendation. Based upon the checklist and the reviewer's general impression of the resource, the instructional material may be recommended or not recommended.

using the criteria

FORM 2 illustrates sample criteria that may be included on a criterion-based evaluation instrument used in conjunction with a real field-test. Each resource can be rated on the criteria and achieve a certain number of points toward a total score. "Outstanding" resources accumulate 80% of the total points. "Useful" or "acceptable" resources accumulate 60% of the total points. Below 60%, an instructional resource is judged "unsuitable."

However, not all criteria are appropriate for all resources, all students, or all situations. For example, readability criteria are not appropriate for cassette tapes. Programmed instruction criteria are not appropriate for a group educational game. Criteria for MR/LD students are not appropriate for blind students. Criteria for a good supplementary text for mainstreamed students may not apply to a text for group use in a self-contained classroom of students at approximately the same level.

To account for these discrepancies when evaluating resources, "Not Applicable" is included for many of the criteria. Yet, even with this safeguard against penalizing resources because they are more narrowly, specifically designed for certain uses, resources may be rated low it they do not conform to certain notions of the "ideal" -- even if that ideal is not always suitable.

Although the applicability of criteria for "outstandingness" is not universal, the total lack of materials that even approach that standard is phenomenal, if the experience of our Center's search is typical. Some glaring deficiencies we have discovered are listed below.

Many resources seem to lack the following:

- lower reading level
- high interest
- easy-to-read layout/print
- immediate feedback
- clear student performance objectives
- student supplemental and review activities
- step-by-step progression
- pre and post tests

implementing review procedures

As a prerequisite to examining curriculum materials to be used with the handicapped, you may need certain guidelines and/or training to demonstrate the following:

- awareness of essential features/ characteristics to evaluate
- understanding of educational terminology
- consistency with other reviewers in both what is examined and how critical the examination is

You may want to test yourself with the following questions regarding essential features of curriculum materials:

> *How aware am I of traditional sex-role stereotyping? Am I sensitive to consistent use of the masculine he/his and pictures dominated by males as managers and females as secretaries? Would I notice illustrations exhibiting mostly Caucasian faces? Would I be offended at a story where Pedro always ate tacos and worked as a custodian?*

Ask yourself these questions concerning your understanding of educational terminology:

> *If given a textbook, would I be able to find an example of favorable work attitudes/habits being developed in the reader? Can I describe how the student's self-worth concept might be enhanced by a film? Do I understand the importance of immediate feedback and how it can be provided by a transparency?*

In order to achieve consistency in examination where many people evaluate resources, reviewers, as a group, should examine several resource to learn how they may evaluate differenlty from one another. Their evaluations originate from different prespectives concerning the focus of their comments, different understandings of how positive personal/social behavior is reinforced, or different tolerance levels for not-quite-appropriate instructional objectives. Reviewers may differ in willingness to rate a resource "not recommended." Their different writing styles may be too apparent in the description sections since a large continuum exists between a flowery, verbose style and an abbreviated style. These differences should be resolved to promote uniformity. Guidelines for reviewers such as those suggested in FORM 3 may help in this resolution.

in summary

The benefits from any evaluation process generally accrue to all concerned, if done in a constructive, deliberate manner. The purpose of looking closely at an instructional resource is not to point out its defects; rather, it is to determine what else is needed to meet the needs of the handicapped vocational students. This may mean supplementing texts with worksheets, films, tapes, and activities to accomodate a variety of learning styles

in a class with a wide range of individual abilities. It may mean going through catalogs to see what else is available or talking to other vocational teachers to learn what else is being used. It may mean providing feedback to publishers concerning what is outstanding, what is minimally acceptable, and what is totally unsuitable -- and why. It should mean watching individual students progress to see what else can be provided.

The obvious lack of curriculum resources suitable for handicapped vocational students denies them the right to an appropriate education established by the Education for All Handicapped Act. It is, therefore, your responsibility as an educator to seek, find, evaluate, and use the best resources available for the handicapped. The method outlined in this article is only one approach to meeting this responsibility. Federal and state governments may have guaranteed the right of handicapped students to learn useful skills and perform as productive workers, but it is the vocational teacher who insures that handicapped students receive and benefit from the full measure of the law.

references

Henson, Ferris O., III., and Thomas N. Fairchild. Mainstreaming Children With Learning Disabilities. Austin, Texas: Learning Concepts, 1976.

Parks, A. Lee, and Thomas N. Fairchild. Mainstreaming the Mentally Retarded. Austin, Texas: Learning Concepts, 1976.

form 1

TITLE

AUTHOR

SOURCE

SUBJECT AREA

HANDICAPPED AREA

INTENDED USE

0 student resource
0 teacher resource
0 administrator resource
0 individual instruction
0 group instruction
0 secondary
0 post-secondary
0 adult education

INSTRUCTIONAL FORMAT

0 subject index
0 bibliography/references
0 performance objectives
0 simple directions
0 student activities
0 student work sheets
0 review questions
0 answer key
0 teacher's handbook/manual

NON-PRINT MATERIAL FORMAT

0 film loop/strip: _____mm
0 film loop/strip with cassette

0 film reel-to-reel: _____mm
0 35mm slide
0 35mm slide with cassette

0 length: _____ minutes
0 overhead projectuals
0 B/W 0 color
0 games
0 other: _____

FEATURES FOR HANDICAPPED STUDENTS

0 develops self-worth concept
0 develops favorable work attitudes/habits
0 develops career awareness
0 identifies related work skills
0 promotes development of psycho-motor skills
0 provides immediate feedback
0 modifiable instructional format
0 reinforces positive personal/social behavior
0 avoids sex stereotyping
0 avoids cultural stereotyping

PRINT MATERIAL FORMAT

0 hardbound
0 paper bound
0 loose leaf
0 stapled
0 plastic spine
0 number of pages _____

MATERIAL READABILITY

0 large print format
0 double column copy
0 generous paragraph spacing
0 reading level: professional

0 reading level: _____ grade

0 high interest level motivator:

_____

ILLUSTRATIONS

0 drawings/cartoons
0 photographs
0 charts/graphs
0 B/W 0 color

VCRD MARYLAND

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form 2

A Selected Sample of Criteria for
Outstanding Vocational Curriculum
Materials for Handicapped Students

Title: _____ Source: _____

Author: _____

Copyright Date: _____

MVCRDC EVALUATION: ____ Outstanding Cost: _____

____ Acceptable

____ Unsuitable

Instructions: More than one comment may be checked per category .

I. Readability	Points Possible
A. Print size	2
____2 large--easy to read	
____1 acceptable	
____0 very large--appears elementary	
____0 small--difficult to read	
____2 not applicable	
B. Technical/vocational vocabulary or concepts	5
____2 reinforced by explanation (illustrations, examples, activities)	
____2 highlighted (bold letters, framed, repeated, sound differences)	
____1 adequately defined	
____0 new vocabulary/concepts not defined	
Total	____
Total Possible	16
II. Format	
A. Fairness to all people	3
____1 racial equity	
____1 racial equity not applicable	
____0 race bias shown	
____1 sex equity	
____1 sex bias not applicable	
____0 sex bias shown	
____1 cultural equity	
____1 cultural equity not applicable	
____0 cultural bias shown	
Total	____
Total Possible	14
III. Objectives	
A. Purpose	1
____1 clearly stated	
____0 not clearly stated	
Total	____
Total Possible	4
Grand Total	____
Total Possible	45

SCALE	45 - 35	Outstanding
	34 - 22	Acceptable
	21 - 0	Unsuitable

form 3

GUIDELINES FOR REVIEWERS
EVALUATING RESOURCES FOR THE HANDICAPPED & DISADVANTAGED

Description

- Is the resource racially, culturally, and/or sexually stereotyped?
- What are the components of the resource? (worksheets, cassettes, filmstrips, etc.)
- What are the primary topical areas or subdivisions?
- What is the general pace of the resource? (fast, moderate, slow)
- Are the components packaged with durability, attractiveness and manageability in mind?
- What is the general instructional sequence? (pretest-presentation-posttest, etc.)
- What specialized equipment is needed for non-print media presentation? (LaBelle format, video cassette, etc.)

Comments

- Does the resource *look* like it is valid for its intended purpose? (high face validity)
- Is new vocabulary clearly explained and presented?
- Is new vocabulary repeatedly presented? (For the MR population, repetition must be made 3 or 4 times to be helpful.)
- Are the learning increments or steps appropriate? (no gaps or leaps in presentation)
- Does the resource attempt to present too many concepts per unit time?
- Are examples and experiences true-to-life and realistic?
- Are characters, vehicles, themes, soundtracks, styles, etc. contemporary?
- Is the resource cost-effective in usefulness, presentation, and content?

Prerequisite Student Skills

- What type and amount of training or experience is assumed?
- What arithmetic or calculating skills are assumed?
- What reading and writing skills are assumed?